

Amendments to the Claims:

Claims 1 through 14 (Canceled)

15. (Previously Presented) A system for transmitting a loopback cell within a switching node of an ATM connection, said switching node including a first adapter having associated ports and a second adapter having associated ports, wherein said loopback cell enters said switching node by a first adapter port, said system comprising:

processing means within said switching node for detecting a loopback condition when an ATM cell enters said first adapter;

a routing header function for appending a routing label to said ATM cell indicating that said ATM cell is a loopback cell to be looped back on said ATM connection, said routing label being appended to said loopback cell only if a loop control bit is set by a control point of said switching node within said first adapter, and

a switching engine for transferring said loopback cell to said first adapter port utilizing said appended routing label.

16. (Original) The system of claim 15, further comprising processing means for setting said loop control bit within said first adapter.

17. (Original) The system of claim 15, further comprising processing means for adding a loopback flag to said loopback cell if said loop control bit is set, wherein said loopback flag serves as an indicator for a protocol engine within said first adapter that said routing labels have to be appended to said loopback cell.

18. (Canceled)

19 (Currently Amended) A system for transmitting a loopback cell within a switching node of an ATM connection, said switching node including a first adapter having associated ports and a second adapter having associated ports, wherein said loopback cell enters said switching node by a first adapter port, said system comprising:

processing means within said switching node for detecting a loopback condition when an ATM cell enters said first adapter;

a routing header function for appending a routing label to said ATM cell indicating that said ATM cell is a loopback cell to be looped back on said ATM connection, said routing label including a switch routing label for identifying said first adapter as the output adapter from which said loopback cell will exit said switching node, and

a switching engine for transferring said loopback cell to said first adapter port utilizing said appended routing label.

20. (Currently Amended) A system for transmitting a loopback cell within a switching node of an ATM connection, said switching node including a first adapter having associated ports and a second adapter having associated ports, wherein said loopback cell enters said switching node by a first adapter port, said system comprising:

processing means within said switching node for detecting a loopback condition when an ATM cell enters said first adapter;

a routing header function for appending a routing label to said ATM cell indicating that said ATM cell is a loopback cell to be looped back on said ATM connection; and

a switching engine for transferring said loopback cell to said first adapter port utilizing said appended routing label and wherein

the ATM header virtual path/virtual circuit of said loopback cell is not swapped by the protocol engine of said first adapter before said loopback cell is transmitted over said an ATM network by said first adapter port.